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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/044,175      | 01/11/2002  | Harry Bims           | 005878.P003         | 1604             |

7590

08/27/2003

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EXAMINER

NGUYEN, DUC M

ART UNIT PAPER NUMBER

2685

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/044,175

Applicant(s)  
Bims

Examiner  
Duc M. Nguyen

Art Unit  
2685



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-20 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 & 7 6) ☐ Other:

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable by **Anvekar et al** (US Patent Number 6,594,475) in view of **Wallstedt et al** (US Patent Number 5,903,834).

Regarding claim 1, **Anvekar** discloses a receiver diversity process (see **col. 3, lines 15-col. 4, line 48**), comprising :

- a plurality of antennas (read on **repeaters**) receiving wirelessly transmitted packets from a mobile station (see **Figs. 1-2 and col. 3, lines 15-col. 4, line 48**) ;

- one of the plurality of antennas forwarding wirelessly transmitted packets to a switch if the one antenna is currently assigned to forward packets from the mobile station based on an indicator assigned to the one antenna (repeater) **prior** to the wirelessly transmitted packets being sent (see **col. 3, lines 15-col. 4, line 48** and particularly step 302 in Fig. 3).

Here, although **Anvekar** differs from the claimed limitation in that a switch rather than an assigned indicator as recited in the claim is used for indicating the selected antenna to forward

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packets to the switch, it would have been obvious to one skill in art to reconfigure the antennas in **Anvekar** to the RAD antennas as disclosed by **Wallstedt** which assigns a unique ID to each RAD antenna so that the system may be expanded, upgraded, or otherwise modified without manually reconfiguring the information (see **Fig. 1, col. 7, lines 8-35**). By doing so, when selecting the best antenna for communicating to the mobile station, it would have been obvious that the ID of such selected antenna would be used as the assigned indicator in order to identify the selected antenna. Here, since **Anvekar** and **Wallstedt** both disclose a method for selecting the best antenna for communicating to the mobile station in an indoor environment, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above teachings of **Anvekar** and **Wallstedt** by either providing **Wallstedt's** teaching of antenna ID as mentioned above to **Anvekar**, or providing **Anvekar's** teaching of initial antenna selection to **Wallstedt**, for initially selecting an antenna (repeater) and to forward packets to a switch as claimed, for battery saving.

Regarding claim 2, it is rejected for the same reason as set forth in claim 1 above. In addition. In addition, it is clear that **Anvekar** as modified would disclose the indicator (antenna ID) is received from the switch as claimed in order to identify the selected antenna (see **Wallstedt, col. 8, lines 13-20**).

Regarding claim 3, it is rejected for the same reason as set forth in claim 1 above. In addition. In addition, since the token is just an indicator for allowing transmission, with the

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broadest reasonable interpretation, the antenna ID for indicating the selection would read on the “token” as claimed.

Regarding claims 4-5, they are rejected for the same reason as set forth in claim 1 above. In addition. In addition, since the required transmission power increases with the distance (see **Anvekar**, col. 1, lines 33-47), it would have been obvious that **Anvekar** as modified would disclose the indicator (antenna ID) is moved from one repeater to another repeater based on movement of the mobile station as claimed in order to update the best antenna selection (see also **Wallstedt**, col. 8, lines 13-20).

Regarding claim 6, it is rejected for the same reason as set forth in claim 1 above. In addition. In addition, it is clear that **Anvekar** as modified would disclose the switch of the indicator (antenna ID) is determined and occurred on a packet-by-packet basis (see **Anvekar**, Fig. 3, step 306, col. 4, line 60 - col. 5, line 7) in order to update the best antenna selection.

Regarding claim 7, it is rejected for the same reason as set forth in claim 1 above. In addition. In addition, since **Anvekar** discloses the switching of antenna is based on time-slots (see **Anvekar**, col. 4, lines 8-20), this would read on “regular intervals” as claims, whereas it would have been obvious that depend on the system configuration, such a transmission time-slot would contain a predetermined number of packets as claimed.

Regarding claim 8, it is rejected for the same reason as set forth in claim 1 above. In addition. In addition, since packets are transmitted, it is clear that the receiving antenna would

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obviously transmit an acknowledgment signal to mobile station for providing feedback data to the mobile station.

***Allowable Subject Matter***

3. Claims 9-20 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 9, 14, 19, the cited prior art fails to disclose or made it obvious an apparatus or method for receiving wirelessly transmitted packets from a mobile station which comprises steps as specified in the claims, wherein the repeater sending an acknowledgment packet to the mobile station if a MAC address in the packets matched with the MAC addresses indicated by one or more tokens stored therein at the repeater.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **MacNamee** (PCT Pub Number WO 96/22636), Radio communication systems with repeaters using identification codes.

- **Dilworth et al** (US Patent Number 5,479,400), Transceiver sharing between access and backhaul in a wireless digital communication system.

6. **Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314 (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner  
should be directed to Duc Nguyen whose telephone number is (703) 306-4531 (Mon-Thu. 9 AM-  
5 PM).

Any inquiry of a general nature or relating to the status of this application should be  
directed to the Group receptionist whose telephone number is (703) 305-4700.

Duc Nguyen



Aug 20, 2003